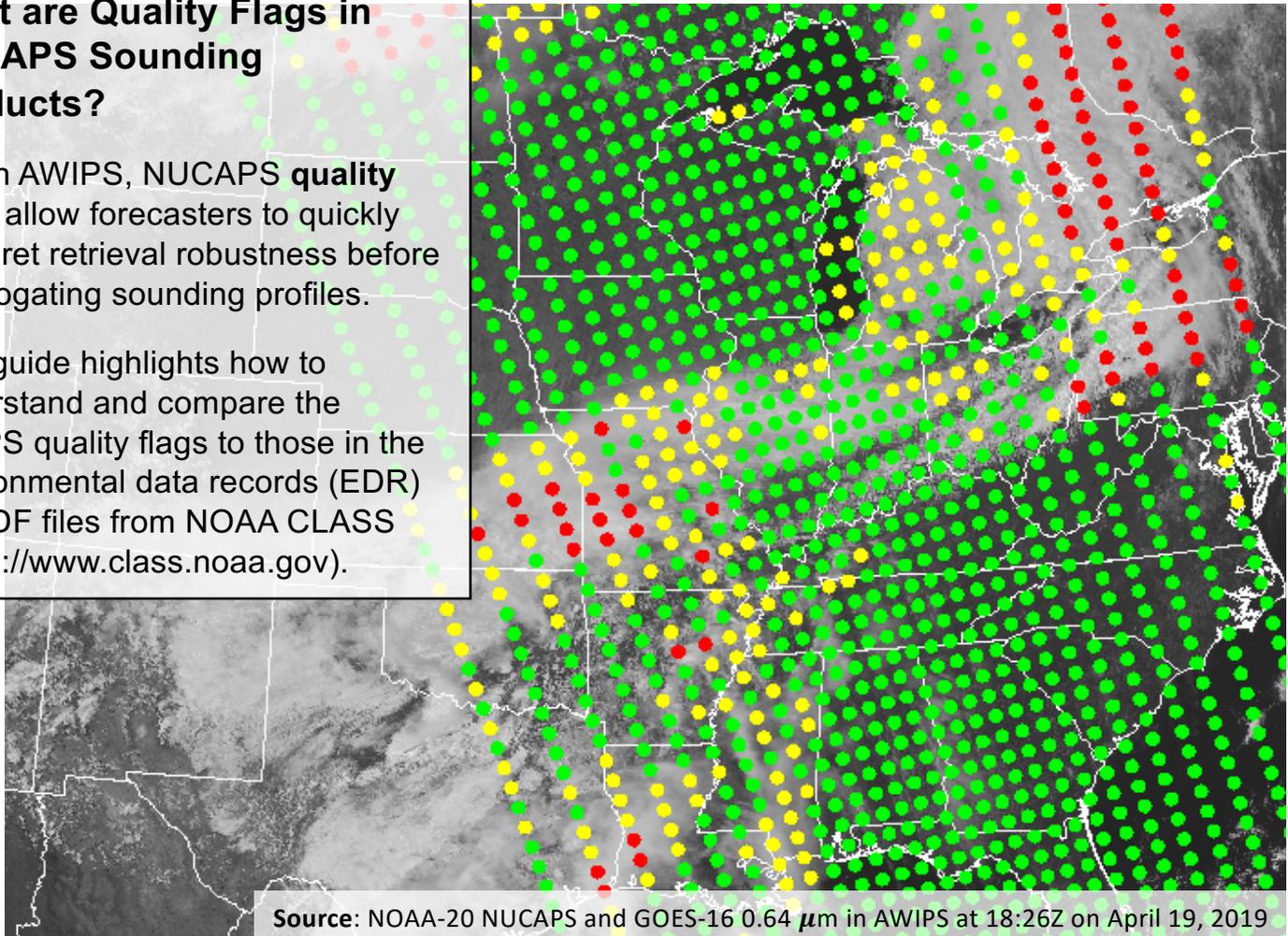


What are Quality Flags in NUCAPS Sounding Products?

Within AWIPS, NUCAPS **quality flags** allow forecasters to quickly interpret retrieval robustness before interrogating sounding profiles.

This guide highlights how to understand and compare the AWIPS quality flags to those in the environmental data records (EDR) netCDF files from NOAA CLASS (<https://www.class.noaa.gov>).



Source: NOAA-20 NUCAPS and GOES-16 0.64 μm in AWIPS at 18:26Z on April 19, 2019

In the EDR file, there is a variable called 'Quality_Flag.' Values in this field correspond to the following AWIPS dot colors below:

| AWIPS Dot Color | EDR Quality Flag | Meaning |
|-----------------|------------------|---|
| Green | 0 | <i>Clear Sky/Partly Clear Conditions</i> Successful infrared (IR) + microwave (MW) NUCAPS retrieval. |
| Yellow | 1, 16, or 17 | <i>Cloudy Conditions</i> Failed IR+MW retrieval. Successful MW-only retrieval |
| Red | 9 or 25 | <i>Precipitating Conditions</i> Failed IR+MW retrieval. Failed MW-only retrieval. |

| Green | Yellow | Red |
|--|--|--|
| 0 | 1, 16, or 17 (16+1) | 9 (8+1) or 25 (8+16+1) |
| Successful infrared (IR) + microwave (MW) NUCAPS retrieval under clear or partly clear conditions. | Failed combined IR+MW NUCAPS retrieval. Successful MW-only NUCAPS retrieval under cloudy conditions. | Failed combined IR+MW NUCAPS retrieval. Failed MW-only NUCAPS retrieval under precipitating cloudy conditions. |

